

Primary Smelting and Refining of Copper: 2002

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2002 Economic Census

Manufacturing

Industry Series



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
331411, Primary smelting and refining of copper	11	15	2 674	110 798	2 171	4 448	84 446	785 668	1 772 030	2 615 252	138 334
2002..	N	N	3 404	143 051	2 635	5 790	105 444	936 750	1 930 389	2 787 309	52 657
2001..	N	N	3 605	156 482	2 691	5 913	114 090	997 712	2 404 917	3 378 211	55 695
2000..	N	N	4 744	193 262	3 565	7 538	142 516	804 172	3 947 000	4 709 764	139 721
1999..	N	N	6 539	249 314	5 000	11 174	188 795	987 607	4 598 402	5 608 129	177 881
1998..	N	N	7 360	287 382	5 721	12 640	218 511	1 029 440	5 010 388	6 128 370	184 604
1997..	9	16									

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. **Industry Statistics for Selected States: 2002**

[Not applicable for this report]

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
331411, Primary smelting and refining of copper	
Companies ¹	number.. 11
All establishments ²	number.. 15
Establishments with 1 to 19 employees	number.. 7
Establishments with 20 to 99 employees	number.. 3
Establishments with 100 employees or more	number.. 5
All employees ³	number.. 2 674
Total compensation	\$1,000.. 159 403
Annual payroll	\$1,000.. 110 798
Total fringe benefits	\$1,000.. 48 605
Production workers, average for year	number.. 2 171
Production workers on March 12	number.. 2 382
Production workers on May 12	number.. 2 214
Production workers on August 12	number.. 2 030
Production workers on November 12	number.. 2 056
Production worker hours	1,000.. 4 448
Production worker wages	\$1,000.. 84 446
Total cost of materials	\$1,000.. 1 772 030
Materials, parts, containers, packaging, etc., used	\$1,000.. 1 681 648
Resales	\$1,000.. D
Purchased fuels	\$1,000.. 44 899
Purchased electricity	\$1,000.. 41 560
Contract work	\$1,000.. D
Quantity of electricity purchased for heat and power	1,000 kWh.. D
Quantity of electricity generated less sold for heat and power	1,000 kWh.. 306 225
Total value of shipments	\$1,000.. 2 615 252
Primary products value of shipments	\$1,000.. 2 203 247
Secondary products value of shipments	\$1,000.. 403 250
Total miscellaneous receipts	\$1,000.. 8 755
Value of resales	\$1,000.. D
Contract receipts	\$1,000.. D
Other miscellaneous receipts	\$1,000.. -
Primary products specialization ratio	percent.. 85
Value of primary products shipments made in all industries	\$1,000.. 2 212 133
Value of primary products shipments made in this industry	\$1,000.. 2 203 247
Value of primary products shipments made in other industries	\$1,000.. 8 886
Coverage ratio	percent.. 100
Value added	\$1,000.. 785 668
Total inventories, beginning of year	\$1,000.. 305 235
Finished goods inventories	\$1,000.. 29 175
Work-in-process inventories	\$1,000.. 206 264
Materials and supplies inventories	\$1,000.. 69 796
Total inventories, end of year	\$1,000.. 230 433
Finished goods inventories	\$1,000.. 17 535
Work-in-process inventories	\$1,000.. 160 350
Materials and supplies inventories	\$1,000.. 52 548
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 827 011
Total capital expenditures (new and used)	\$1,000.. '38 334
Buildings and other structures (new and used)	\$1,000.. D
Machinery and equipment (new and used)	\$1,000.. D
Automobiles, trucks, etc., for highway use	\$1,000.. '16
Computers and peripheral data processing equipment	\$1,000.. D
All other expenditures for machinery and equipment	\$1,000.. '17 146
Total retirements	\$1,000.. '9 144
Gross value of depreciable assets at end of year	\$1,000.. '856 201
Depreciation charges during year	\$1,000.. '82 135
Total rental payments	\$1,000.. 6 468
Buildings and other structures	\$1,000.. 269
Machinery and equipment	\$1,000.. 6 199
Total other expenses ⁴	\$1,000.. 116 778
Response coverage ratio ⁵	percent.. 95
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. D
Communications services ⁴	\$1,000.. 446
Legal services ⁴	\$1,000.. D
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. D
Advertising and promotional services ⁴	\$1,000.. D
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 1 285
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 2 378
Management consulting and administrative services ⁴	\$1,000.. D
Taxes and license fees ⁴	\$1,000.. D
All other expenses ⁴	\$1,000.. D

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
331411, Primary smelting and refining of copper											
All establishments	—	15	2 674	110 798	2 171	4 448	84 446	785 668	1 772 030	2 615 252	138 334
Establishments with—											
1 to 4 employees	7	4	14	604	13	19	270	1 409	1 798	3 173	D
5 to 9 employees	—	1	a	D	D	D	D	D	D	D	—
10 to 19 employees	8	2	b	D	D	D	D	D	D	D	D
20 to 49 employees	—	1	b	D	D	D	D	D	D	D	D
50 to 99 employees	—	2	c	D	D	D	D	D	D	D	D
100 to 249 employees	—	1	c	D	D	D	D	D	D	D	D
250 to 499 employees	—	3	1 060	48 011	902	1 923	39 453	195 037	1 315 852	1 553 065	D
500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
1,000 to 2,499 employees	—	1	g	D	D	D	D	D	D	D	D
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	—	—	—	—	—	—	—	—	—	—	—

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
331411	Primary smelting and refining of copper	15	2 674	110 798	2 171	4 448	84 446	785 668	1 772 030	2 615 252	'38 334
3314110	Primary smelting and refining of copper	15	2 674	110 798	2 171	4 448	84 446	785 668	1 772 030	2 615 252	'38 334

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
331411	Primary smelting and refining of copper	N	X	X	2 212 133
	1997 ..	N	X	X	5 387 471
3314110	Primary smelting and refining of copper	N	X	X	2 212 133
	1997 ..	N	X	X	5 387 471
33141101	Refined primary copper and copper-base alloy and primary copper smelter products, not commercial grade, produced for further refining, including blister or anode copper, etc.	N	X	X	2 211 592
	1997 ..	N	X	X	5 387 412
3314110101	Primary copper smelter products, not of commercial grade, produced for further refining, including blister or anode copper, etc. 1,000 s tons ..	7	X	D	D
	1997 ..	8	1 440.6	1 420.7	2 100 548
3314110113	Other refined primary copper and copper-base alloy (including cathode, wire bar, ingot and ingot bar, cakes, slabs, shot, etc.) ¹ 1,000 s tons ..	9	X	D	D
	1997 ..	N	X	N	N
3314110Y	Primary copper, nsk, total	N	X	X	541
	1997 ..	N	X	X	59
3314110YWW	Primary copper, nsk, for nonadministrative-record establishments	N	X	X	541
	1997 ..	N	X	X	59
3314110YWY	Primary copper, nsk, for administrative-record establishments	N	X	X	—
	1997 ..	N	X	X	—

¹This product code is primary to more than one industry. See industry 331423, product code 3314230501.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
331411	Primary smelting and refining of copper		
00900001	Total materials	X	1 681 648
	1997..	X	4 729 819
33141103	Refined unalloyed copper (cathodes, ingots, cakes, slabs, etc.), including blister and anode copper		
	1,000 s tons ..2002..	994.8	1 175 244
	1997..	1 729.3	3 411 290
33141902	Precious metals and precious metal alloy shapes and forms (excluding castings, forgings, and fabricated metal products)		
	2002..	X	D
	1997..	X	N
21223400	Mining copper ores, concentrates and precipitates (gross weight)		
	1,000 s tons ..2002..	D	D
	1997..	S	922 003
00970099	All other materials and components, parts, containers, and supplies		
	2002..	X	55 626
	1997..	X	396 526

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.